

AMENDMENTS TO THE CLAIMS

1. (currently amended) A system for current regulation of a light emitting diode, said system comprising:

a voltage source,

a light emitting diode electrically connected to said voltage source for supplying light to an area,

at least one field effect transistor electrically connected to said voltage source and supplying a constant output current to said light emitting diode,

wherein said field effect transistor is a voltage driven component having ~~an~~ the constant output current governed by a junction voltage of said field effect transistor.

2. (original) The system for current regulation of a light emitting diode according to claim 1, wherein said junction voltage is made constant by connecting a gate and a source of said field effect transistor together.

3. (original) The system for current regulation of a light emitting diode according to claim 1, wherein a resistor is electrically connected between said gate and said source to create a predetermined nonzero gate-source voltage.

4. (original) The system for current regulation of a light emitting diode according to claim 1, wherein said gate and said source are electrically connected to create a substantially zero gate-source voltage.

5. (original) The system for current regulation of a light emitting diode according to claim 1, wherein a current supplied to said light emitting diode is limited by a maximum output current value defined the output voltage of the field effect transistor set by a gate-source voltage.

6. (original) The system for current regulation of a light emitting diode according to claim 1, wherein said field effect transistor allows current to pass as long as said current is no greater than a maximum output current value defined the output voltage of the field effect transistor set by a gate-source voltage.

7. (original) The system for current regulation of a light emitting diode according to claim 1, wherein an average current delivered to said light emitting diode is proportional to a maximum output current value defined the output voltage of the field effect transistor set by a gate-source voltage.

8. (original) The system for current regulation of a light emitting diode according to claim 1, wherein said field effect transistor is disposed upstream of said light emitting diode.

9. (original) The system for current regulation of a light emitting diode according to claim 1, wherein said field effect transistor is disposed downstream of said light emitting diode.

10. (original) The system for current regulation of a light emitting diode according to claim 1, wherein an optional resistor may be electrically connected between said gate and said source.

11. (original) The system for current regulation of a light emitting diode according to claim 1, wherein at least two field effect transistors are electrically connected to said voltage source and said light emitting diode.